

The Value Relevance of Corporate Social Responsibility: Focusing on Donation Expenditure

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Received: May 27, 2016 Accepted: June 7, 2016 Online Published: July 7, 2016

doi:10.5539/ass.v12n8p1

URL: <http://dx.doi.org/10.5539/ass.v12n8p1>

This research was supported by the research fund of Hanbat National University in 2014.

Abstract

This paper investigates the value relevance of corporate social responsibility. In particular, the paper examines the time lag value relevance of donation expenditure on firm value over the period of 2000–2014 in the listed Korean stock markets. Through empirical analysis, the paper provides evidence that donation expenditure has a significant effect on future firm value.

The empirical results of this paper support research hypothesis 1 (donation expenses have an effect on firm value) and research hypothesis 2 (donation expenses have a time lag effect on firms' future value). In particular, the results show that donation expenses have an effect on firm value and the time lag interval is from two to 12 years. These results suggest that donation expenses can be regarded as assets that have potential for firms' future cash flows.

The empirical evidence of this paper suggests there should be debate on whether the accounting treatment of donations should be changed in Korean accounting practices.

Keywords: corporate social responsibility, donation expenditure, firm value, time lag effect, value relevance

1. Introduction

For several decades, many companies have invested a great amount of resources in donation activities classified as corporate social responsibility (CSR). The concepts of CSR have evolved over time, and CSR has two definitions from two points of view. The socio-philanthropic perspective defines CSR as actions and charitable programs restraining profit maximization, and the legal standpoint of complying with regulations and rules defines CSR as charitable actions beyond the minimum legal parameters (Andrews, 1973; Buehler & Shetty, 1976; Hollender, 2004; Pierce & Aguinis, 2009; D'Aprile & Talò, 2014).

Donation is defined as charitable gifts or actions without any business purposes. Donation may take various forms such as cash, service, food, medicine, or goods. On the other hand, advertisement and entertainment costs are spent for business purposes. Thus, donation cost is differentiated from advertisement and entertainment cost because of its charitable purpose, with the firm getting nothing in return. Even though donation is not for business but for charity, many companies willingly incur donation expenses, and voluntary donation cost is different from imposed corporate tax.

Even though donation is not for business purposes, most CEOs usually believe that doing what is good improves the image of the business, and sometimes companies that spend money on CSR have less risk of negative business incidents. According to Fombrun, Gardberg, and Sever (2000), corporate donation is undertaken because of the faith that a good reputation gives companies intangible benefits such as a favorable market opinion. In the same vein, Fry, Keim, and Meiners (1982) insist that profit and benefit are generally considered when companies engage in charitable actions.

Because of this, many studies have questioned the value relevance of donation expenses in business. They have used donation cost as a proxy variable of CSR and investigated the empirical relationship with firm value (Vance, 1975; Alexander & Bucholz, 1978; Anderson & Frankle, 1980; Cochran & Wood, 1984; Aupperle,

Carroll, & Halfield, 1985; Ullmann, 1985; McGuire, Sundgren, & Schneeweis, 1988; Waddock & Graves, 1997; Fombrun et al., 2000; Brown, Hellan, & Smith, 2006; Fishman, Heal, & Nair, 2006; Lev, Christine, & Suresh, 2006; Parket & Eilbirt, 2006; Bird, Hall, Momentè, & Reggiani, 2007). In those previous studies, firm value is usually defined as market value of equity, calculated by summing all of the company's outstanding shares. Therefore, the firm's market value of equity is always changing based on relevant value factors such as book value of equity, net income, R&D investment, and training costs.

For example, Waddock and Graves (1997) report that corporate social performance is positively associated with financial performance. Fishman et al. (2006) and Brown et al. (2006) also document that companies in fierce competition spend much on donation expenses, and this has a positive influence on firm value. Although donations are not made for business purposes, these papers assume that donation cost promotes sales, which is finally associated with an increase in firm value.

Conversely, other studies document that excessive donation activity increases the total cost of business, and finally leads to a decrease in firm value (Davis & Blomstorm, 1975; Fredirick et al., 1988; Barnea & Rubin, 2006). For example, Barnea and Rubin (2006) provide evidence that if insiders such as managers and large blockholders undertake donation activities solely for personal reputation benefits, this may lead to over-investment, which can decrease firm value.

Because of the competing evidence on the value relevance of donation, it is still treated as a temporary activity and recognized as a business expense. In many countries, including Korea, donation activities are defined as one-year business expenses in the accounting rules. Therefore, there is still a limited consideration of whether business donation activities influence the market value of equity.

This study deals with the question of whether the CSR activities of modern companies increase or decrease firm value. For a more precise empirical analysis, this paper uses donation expenditure as a substitute for CSR, like the previous literature (Bae, Kim, & Kim, 2008; Kim, Hong, & Kim, 2008; Shin, Kim, & Kim, 2011; Kwon, 2013). The research question of this study is whether donation expenses should be considered an important factor when determining firm value. Moreover, this paper particularly focuses on the time lag value relevance of donation expenditure to test whether corporate donation activities should be treated as "assets" or "business expenses" in firms listed on the Korean stock markets. If the empirical relationship between donation expenditure and firm value can be analyzed, the results of this paper will contribute to the accounting literature on the value relevance of CSR.

The purposes of this paper are twofold. On the one hand, this paper examines whether corporate donation is significantly associated with firm value in Korean financial markets. This is attempting to verify whether Korean investors take donation into consideration when they invest in Korean companies. On the other hand, this paper tries to determine whether business donation has value relevance for a long period. If this paper provides empirical evidence of the long-term value relevance of donation expenses, the accounting treatment of donation could be changed.

The remainder of this study is organized as follows. Section 2 provides a brief overview of the debate on the value relevance of donation activities. Section 3 suggests research hypotheses and develops empirical frameworks for the link between donation expenditure and firm value. Section 4 provides empirical results on the relationship between donation and financial performance as a proxy for firm value. Finally, the study is summarized in section 5.

2. Literature Review

For decades, many papers have questioned the tangible and intangible benefits of being socially benevolent for companies. For example, McAlister and Ferrell (2002) insist that organizations have recognized the importance of benevolent philanthropy to business even though it is not always associated with company profits. They also report that most organizations in the twenty-first century strategically link philanthropy with marketing and advertising in business. Moreover, according to Syverson (2006), to a certain extent, corporate donation is intended to increase the public image, name recognition, and consumer loyalty for a business.

However, there are conflicting views about whether donation activities are associated with firm value. One view is that donation activities increase firm value because socially benevolent companies have a favorable corporate reputation, which can lead to tangible and intangible benefits (Anderson & Frankle, 1980; Cochran & Wood, 1984; Aupperle et al., 1985; Soloman & Hansen, 1985; Ullmann, 1985; McGuire et al., 1988; Shaker, Oviatt, & Minyard, 1993; Waddock & Graves, 1997; Balabanis, Philips, & Lyall, 1998; Fombrun et al., 2000; Hillman & Keim, 2001; Goll & Rasheed, 2002; Joyner & Payne, 2002; Carden & Darragh, 2004; Brown et al. 2006;

Fishman et al., 2006; Lev et al., 2006; Parket & Eilbirt, 2006; Bird et al., 2007).

For example McGuire et al. (1988) investigate whether corporate reputation index data from Fortune magazine's annual survey, used as a proxy for donation activities, influence financial performance factors such as risk-adjusted return and total return. They provide evidence of a positive relationship between donation activities and firm performance. This result is inconsistent with the empirical results of Cochran and Wood (1984), who report no significant relationship exists between firm performance and donation activities. McGuire et al. (1988) suggest the possibility that corporate donation activities can promote business profits.

In addition, Herremans et al. (1993) hypothesize that firms engaging in more donation activities have better financial performance. They provide evidence that a positive association exists between donation activities and stock market returns. Their empirical results are similar to those of McGuire et al. (1988).

Waddock and Graves (1997) also explore the empirical relationship between corporate donation activities and financial performance and find a positive relationship. They also provide evidence that donation activities are both the cause and the effect of financial performance. Their results are consistent with the empirical results of McGuire et al. (1988).

Goll and Rasheed (2002) report that the direction of association between donation activities and firm value mainly depends on the business environment. They document that if the external business environment is supportive to the firm, donation activities have a positive effect on firm value.

Another study is that of Bird et al. (2007). They examine the relationship between corporate donation activities and the market value of equity. They find that corporate donation activities are significantly related to two- or three-year lagged returns as well as one-year lagged returns.

Contrary to these studies, others report a negative relationship between donation activities and firm value because being socially benevolent activities has costs for the business, which decreases financial performance (Vance, 1975; Aupperle et al., 1985; Ullmann, 1985; McGuire et al. 1988; Riahi-Belkaoui, 1992; Wright & Ferris, 1997; Teoh et al., 1999; McWilliams & Siegel, 2000).

For example, Vance (1975) investigates the association between donation activities and stock returns, and finds donation activities have no value relevance in all sample companies except one. Aupperle et al. (1985) and Teoh et al. (1999) also report no significant relationship between donation activities and firm value.

McWilliams and Siegel (2000) use the model of Waddock and Graves (1997) to test the link between donation activities and financial performance by adding intangible variables such as R&D intensity and advertising intensity. They show that donation activities have no significant relationship with financial performance.

3. Hypotheses and Research Model

3.1 Research Hypotheses

As mentioned earlier, the argument over the empirical relationship between donation activities and firm value has lasted for decades. The debate on the value relevance of donation expenses stems from Friedman (1970). Friedman (1970) insists companies making charitable donations have a competitive disadvantage in the cost-benefit relationship. Donation expenses incur costs that reduce business profits. In the same vein, many empirical studies report no significant relationship between donation activities and financial performance (Vance, 1975; Aupperle et al., 1985; Ullmann, 1985; McGuire et al., 1988; Riahi-Belkaoui, 1992; Wright & Ferris, 1997; Teoh et al., 1999; McWilliams & Siegel, 2000).

However, other papers reveal that donation activities significantly increase firm value because of the good reputation created through an act of charity (Anderson & Frankle, 1980; Cochran & Wood, 1984; Aupperle et al., 1985; Soloman & Hansen, 1985; Ullmann, 1985; McGuire et al., 1988; Shaker et al., 1993; Waddock & Graves, 1997; Balabanis et al., 1998; Fombrun et al., 2000; Hillman & Keim, 2001; Goll & Rasheed, 2002; Joyner & Payne, 2002; Carden & Darragh, 2004; Fishman et al., 2006; Lev et al., 2006; Brown et al., 2006; Parket & Eilbirt, 2006; Bird et al., 2007).

To end the dispute on the relationship between donation activities and firm value, this paper tries to test the sign of the relationship between donation activities and firm's financial performance in firms listed on the Korean stock markets. In addition, this paper investigates whether the influence of donation expenses on firm value continues over several years. To do so, this paper establishes two hypotheses. The first hypothesis is to test the value relevance of donation expenses, and the second is to investigate whether donation costs have the potential ability to create future cash flows in business.

H1: Donation expenses have an effect on firm value.

H2: Donation expenses have a time lag effect on firms' future value.

3.2 Empirical Model

In accounting, assets are defined as tangible and intangible resources creating future potential cash flows. If ideal firm value is the sum of future potential cash flows, firm value is a function of assets (equation 1).

$$V = \theta (\text{Assets}) \quad (1)$$

Here, V =firm value, Assets =value of assets, θ =response coefficient of assets in firm value.

Assets in business is divided by identified assets and unidentified assets in the financial statements (equation 2).

$$V = \theta (\text{RA} + \text{URA}) + \varepsilon \quad (2)$$

Here, V =firm value, RA =identified assets, URA =unidentified assets, θ =response coefficients of assets in firm value, ε =error term.

Equation (2) shows enterprise value as a function of identified assets (RA) and unidentified assets (URA). RA is the total tangible and intangible assets, and URA means assets creating future cash flows but that do not appear in the financial statements. Advertising, ordinary R&D, and training costs are included in URA . This paper assumes that donation cost may create future cash flows, like advertising, ordinary R&D, and training costs, so it should be included in URA . Because this paper focuses on revealing the value relevance of donation cost, URA is divided into donation cost and other unidentified assets such as advertising, ordinary R&D, and training costs (equation 3).

$$\text{URA} = \text{DON} + \text{Other URA} \quad (3)$$

Here, URA =unidentified assets in financial statements, DON =donation costs, Other URA =other unidentified assets in financial statements (i.e., advertising, ordinary R&D, training costs).

Firm value is a function of RA , donation cost, and other URA , as seen by combining equations (2) and (3).

$$V = \theta (\text{RA} + \text{DON} + \text{Other URA}) + \varepsilon \quad (4)$$

Here, V =firm value, RA =identified assets, DON =donation cost, Other URA =other unidentified costs (i.e., advertising, ordinary R&D, training costs), θ =response coefficient of assets in firm value, ε =error term.

Generally, net income or operating net income proxies for firm value (V), and total assets in the balance sheet substitutes for identified assets (RA). Unidentified assets (URA) are not published on financial statements; however, if URA includes donation cost only, the total value of URA is calculated as the sum of unamortized donation cost. This paper defines the sum of unamortized donation cost as DONC . This paper hypothesizes that DONC creates current and future potential cash flows (equation 5).

$$\text{DONC} = \sum_k a_k \text{AD}_{t-k} \quad (5)$$

Here, DONC =total value of unidentified donation cost, a_k =response coefficient of donation cost in creating potential future cash flows.

Equation (6) is made by combining equations (4) and (5).

$$\text{OI} = \theta (\text{TA} + \text{DONC} + \text{Other URA}) + \varepsilon \quad (6)$$

Here, OI =operating income, TA =total assets, DONC =unidentified donation cost, Other URA =other unidentified assets (i.e., advertising, ordinary R&D, training costs), θ =response coefficient in market value of equity, ε =error term.

As empirical tests for the research hypotheses of this paper, the study converts equation (6) into equations (7) and (8):

$$\frac{\text{OI}}{S} = a_0 + a_1 \left(\frac{\text{TA}}{S}\right)_{i,t-1} + a_2 \left(\frac{\text{AD}}{S}\right)_{i,t} + a_3 \left(\frac{\text{RD}}{S}\right)_{i,t} + a_4 \left(\frac{\text{TR}}{S}\right)_{i,t} + a_5 \left(\frac{\text{DON}}{S}\right)_{i,t} + \varepsilon \quad (7)$$

$$\frac{\text{OI}}{S} = a_0 + a_1 \left(\frac{\text{TA}}{S}\right)_{i,t-k-1} + a_2 \left(\frac{\text{AD}}{S}\right)_{i,t-k} + a_3 \left(\frac{\text{RD}}{S}\right)_{i,t-k} + a_4 \left(\frac{\text{TR}}{S}\right)_{i,t-k} + a_5 \left(\frac{\text{DON}}{S}\right)_{i,t-k} + \varepsilon \quad (8)$$

Here, OI =operating income before deducting advertising, ordinary R&D, training, and depreciation cost; S =total sales; TA =total assets; DON =donation cost in period t ; AD =advertising cost in period t ; RD =ordinary R&D cost in period t ; TR =training cost in period t ; $a_1 a_2 a_3 a_4 a_5$ =coefficients; ε =error term.

The test model basically assumes operating income is a linear function of current and lagged donation cost, and every variable of this paper is standardized by total sales in period t . To test the multi-period value relevance of donation cost, this paper replicates the time lag empirical model in Alt (1942) and Tinbergen (1940).

4. Empirical Analysis

4.1 Sample Selection

This paper extracts sample data from the KIS-VALUE (Korea Investor Service-Financial Analysis System) database. The sample data cover the 15-year period from 2000 to 2014. The study excludes outliers (Note 1), companies that do not settle their accounts in December, those in the banking business, and legal management companies. This paper also deletes impaired capital companies and firms that do not have variable data in the KIS-VALUE DB. This paper provides selected sample data in Table 1.

Table 1. Selection of sample firms

Data sample extracted from KIS-FAS DB at the end of 2000–2014 (firm-year)	32,265
Minus (-):	7,080
Samples that do not settle their accounts in December annually	
Financial/banking companies	
Legal management companies	
Impaired capital companies	
Samples that do not have data in the KIS-VALUE DB	
Total data samples (firm-year)	25,185

4.2 Empirical Results

4.2.1 Descriptive Statistics

Table 2 shows the descriptive statistics of main variables. The sample of this paper includes 25,185 firm-year observations for the period of 2000–2014. The dependent variable of this paper, OI/S, has a mean value of -0.06446, a minimum value of -1,011, and a maximum value of 34.24435. The independent variables, TA/S, TR/S, RD/S, and AD/S show mean values of 2.66893, 0.000526, 0.04838, and 0.000432, respectively. The main variable of this paper, DON/S, has a mean value of 0.00367, a maximum value of 33.07972, and a standard deviation of 0.25897.

Table 2. Descriptive statistics of main variables

Variable	N	Median	Standard Deviation	Sum	Minimum	Maximum
OI/S	25,185	-0.06446	8.68837	-1624	-1011	34.24435
TA/S	25,185	2.66893	73.82662	67217	0	8272
TR/S	25,185	0.000526	0.02562	13.25415	0	3.96575
RD/S	25,185	0.04838	2.17609	1218	0	334.3246
AD/S	25,185	0.000432	0.00422	10.88994	0	0.22779
DON/S	25,185	0.00367	0.25897	92.4298	0	33.07972

Note. OI=operating income before deducting advertising, ordinary R&D, training, and depreciation cost; S=total sales; TA=total assets; DON=donation cost in period t; AD=advertising cost in period t; RD=ordinary R&D cost in period t; TR=training cost in period t.

4.2.2 Correlation Analysis

This paper performs a Pearson correlation analysis on the main variables in order to determine the direction and degree of empirical relationships among them (Table 2). The correlation statistics show that OI/S, TA/S, TR/S, RD/S, and DON/S are negatively related, but the association between OI/S and AD/S is positive. This result gives an indication of the value relevance direction of the main independent variables.

Table 3. Pearson correlation

	OI/S	TA/S	TR/S	RD/S	AD/S	DON/S
OI/S	1	-0.95937 <.0001	-0.07609 <.0001	-0.75484 <.0001	0.00223 0.7237	-0.54292 <.0001
TA/S	-0.95937 <.0001	1	0.01634 0.0095	0.66789 <.0001	-0.0016 0.7999	0.60667 <.0001
TR/S	-0.07609 <.0001	0.01634 0.0095	1	0.01766 0.0051	0.00396 0.5302	-0.00018 0.977
RD/S	-0.75484 <.0001	0.66789 <.0001	0.01766 0.0051	1	-0.00135 0.8306	0.01932 0.0022
AD/S	0.00223 0.7237	-0.0016 0.7999	0.00396 0.5302	-0.00135 0.8306	1	-0.00088 0.8893
DON/S	-0.54292 <.0001	0.60667 <.0001	-0.00018 0.977	0.01932 0.0022	-0.00088 0.8893	1

Note. OI=operating income before deducting advertising, ordinary R&D, training, and depreciation cost; S=total sales; TA=total assets; DON=donation cost in period t; AD=advertising cost in period t; RD=ordinary R&D cost in period t; TR=training cost in period t; Pearson's coefficient of correlation, two-sided test.

4.2.3 Value Relevance of Donation Expenses

The empirical relationship between donation expenses and operating income is shown in Table 4. Table 4 shows that total assets (TA/S) and ordinary R&D costs (RD/S) are negatively associated with operating income in most individual year regressions. Advertising cost (AD/S) shows a significant relationship with operating income in the periods of 2000–2004, 2007, and 2010, and training costs (TR/S) are significantly related to the dependent variable (OI/S) in the periods of 2000–2003 and 2005–2009.

Table 4 also presents that donation costs are positively associated with operating income at the 1% level of significance in the periods of 2001–2006, 2009–2010, and 2012. This result supports the hypothesis of this paper (H1: Donation expenses have an effect on firm value). This result indicates that donation expenses are more value-relevant than advertising and training costs. This is the same result as in previous studies such as Bae et al. (2008), Kim et al. (2008), Shin et al. (2011), and Kwon (2013), which provide evidence that donation cost is significantly associated with market value of equity in the Korean stock markets.

Table 4. Relationship between donation expenses and operating income

$$\text{Research model 1: } \frac{OI}{S} = a_0 + a_1 \left(\frac{TA}{S}\right)_{i,t-1} + a_2 \left(\frac{AD}{S}\right)_{i,t} + a_3 \left(\frac{RD}{S}\right)_{i,t} + a_4 \left(\frac{TR}{S}\right)_{i,t} + a_5 \left(\frac{DON}{S}\right)_{i,t} + \varepsilon$$

Year	Number	F Value	Adj R-Sq	Intercept	TA/S	RD/S	AD/S	TR/S	DON/S
2014	1,679	3.37***	0.0071	0.0641***	0.00132	-0.12828	1.39792	20.01781	0.70882
2013	1,679	2.43**	0.0043	0.05785***	0.00219**	0.17231	1.02757	-1.56399	2.10098
2012	1,679	5.53***	0.0134	0.06713***	-0.00006068	0.30936***	0.45935	5.59586	3.26838***
2011	1,679	26.62***	0.0711	0.09067***	-0.00333***	-0.02878	0.85063	4.53881	1.27254
2010	1,679	197.98***	0.3722	0.13067***	-0.0377***	0.18078***	2.6292**	5.2725	10.19352***
2009	1,679	40.09***	0.106	0.07787***	-0.00322***	0.46321***	2.28057	10.6816**	4.04694***
2008	1,679	24.87***	0.0668	0.07833***	-0.01555***	0.70473***	-6.82314	20.2952***	0.45842
2007	1,679	8.44***	0.022	0.08672***	-0.00504**	-0.18508**	2.04218**	22.27202***	-1.2243
2006	1,679	361.63***	0.5196	0.18012***	-0.1027***	-0.72725***	1.19737	34.96249***	8.48364***

2005	1,679	22.12***	0.0602	0.08487***	-0.0205***	0.28339***	0.55471	18.22675***	8.41615***
2004	1,679	3455.22***	0.9127	0.30106***	-0.24919***	-0.82944***	5.77956**	9.0393	19.03523***
2003	1,679	95.7***	0.2225	0.14442***	-0.06043***	-0.64735***	1.89473***	3.10847	10.00559***
2002	1,679	133.56***	0.2857	0.14462***	-0.08447***	-0.29893***	2.56792***	7.56316***	10.41332***
2001	1,679	958.55***	0.7421	0.21654***	-0.15864***	-0.47568***	5.8345***	16.00334***	-10.3981***
2000	1,679	134.86***	0.286	0.14246***	-0.11678***	-0.5823***	2.07391**	20.36541***	9.94552***

Note. OI=operating income before deducting advertising, ordinary R&D, training, and depreciation cost; S= total sales; TA=total assets; DON=donation cost in period t; AD=advertising cost in period t; RD=ordinary R&D cost in period t; T=training cost in period t; * = p < 0.1; ** = p < 0.05; *** = p < 0.01.

4.2.4 Time Lag Value Relevance of Donation Expenses

For further evidence of the value relevance of donation expenses, this paper performs time lag regressions on operating income with annual donation costs. Table 5 shows that donation costs have significant effects on operating income that last for two to 12 years. On the whole, donation costs from two to five years ago influence current operating income positively, while donations given more than six years ago have negative effects on operating income in the current year.

These results support the research hypothesis (H2: Donation expenses have a time lag effect on firms' future value). This indicates that donation cost can create future cash flows, and it may be possible to capitalize donation cost in firm listed in the Korean stock markets.

This result shows donation costs have long-term value relevance, and the empirical evidence on the long-term value relevance of donation activities provides the possibility of change in the accounting treatment of donation cost in Korea.

Table 5. Time lag value-relevance of donation expenses

$$\text{Research model 2: } \frac{OI}{S} = a_0 + a_1 \left(\frac{TA}{S}\right)_{i,t-k-1} + a_2 \left(\frac{AD}{S}\right)_{i,t-k} + a_3 \left(\frac{RD}{S}\right)_{i,t-k} + a_4 \left(\frac{TR}{S}\right)_{i,t-k} + a_5 \left(\frac{DON}{S}\right)_{i,t-k} + \varepsilon$$

Variable/Year	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Intercept	0.04463***	0.05194***	0.05709***	0.08165***	0.12544***	0.06968***	0.07087***	0.07935***	0.17617***	0.081***	0.29134***	0.14407***	0.13601***	0.20635***
TA/S	0.00523***	0.00094	-0.0003	-0.0034	-0.0394***	-0.0033***	-0.0133***	-0.0051**	-0.1029***	-0.0184***	-0.2496***	-0.0662***	-0.0772***	-0.1528***
RD/S	-0.1476**	0.26072	0.40911***	0.00191	0.26159***	0.41327***	0.78255***	-0.162**	-0.7148***	0.25892***	-0.8576***	-0.6736***	-0.2563***	-0.4195***
AD/S	1.97686	1.15719**	0.5305	0.9717	2.70728**	2.15739	-6.8975	1.99483**	1.24642	0.50357	5.09931**	1.81484***	2.44378***	5.42636***
TR/S	19.2879	-2.9941	5.83882	4.87286	4.31286	10.0098**	21.6157***	20.2911***	33.5129***	17.838***	10.0086	2.79031	6.76814***	14.435***
DON/S 2014	6.08153***													
DON/S 2013	-0.3474	1.34063												
DON/S 2012	-0.7997	1.03644	1.17413											
DON/S 2011	-0.9966	-7.1696***	-1.5373	-1.1161										
DON/S 2010	-0.7807	4.3491**	2.94085	0.39555	3.97839**									
DON/S 2009	1.12845	-0.9169	1.44939	2.77982***	3.16439***	3.5557***								
DON/S 2008	2.73122**	3.68958***	2.41397**	2.66131***	3.44985***	3.21673***	1.0442							
DON/S 2007	4.43213**	0.68846	3.27163***	2.37293**	2.3492**	2.6678***	-4.7736***	2.43165						
DON/S 2006	-0.2721	0.1843	0.33492	1.25405	2.18894	1.65876	1.88996	3.03865	5.92221***					
DON/S 2005	-0.8404	4.51564	-0.7339	1.64315	-1.2866	0.32784	8.90281***	1.08042	8.44449***	5.96625***				
DON/S 2004	0.04088	1.17822	-0.7364	-3.1948**	0.14032	-2.4494	-0.986	1.97422	-5.586***	1.44	12.3014***			
DON/S 2003	1.19796	-0.5399	0.17028	0.81937	-1.6177**	-2.6245	-1.6899	-3.0603***	0.96548	1.30347	-1.1541	7.03049***		
DON/S 2002	-0.035**	-0.0137	-0.0035	-0.0291**	0.0481**	4.69022***	0.02731	0.07292***	-0.0273	-0.0367	9.49098***	6.87583***	10.7777***	

DON/S 2001	0.219	0.26089	0.1786	0.32188	1.28038***	0.11308	0.39485	0.07982	1.02696***	0.66602***	2.0468***	0.84919***	-0.0291	-12.195***
DON/S 2000	0.15828	0.08778	1.82822	1.27152	1.22241	0.51429	-0.4274	1.11036	2.85272**	1.68756	4.95214***	1.85086	2.08469	7.88334***
F Value	4.1	3.42	4.85	13.23	74.76	19.03	13.43	6.51	176.22	11.61	2008.09	89.12	87.24	979.08
Adj R-Sq	0.0342	0.0256	0.0377	0.1047	0.4001	0.133	0.0885	0.0384	0.5364	0.0605	0.9163	0.2987	0.2672	0.7791
Number of Observations														
Used	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679

Note. OI=operating income before deducting advertising, ordinary R&D, training, and depreciation cost; S=total sales; TA=total assets; DON=donation cost in period t; AD=advertising cost in period t; RD=ordinary R&D cost in period t; TR=training cost in period t; * = $p < 0.1$; ** = $p < 0.05$; *** = $p < 0.01$.

5. Summary and Conclusions

The purpose of this paper is to test the time lag value relevance of donation expenses as proxies for CSR activities on firm value over the period of 2000–2014 in firm listed on the Korean stock markets. The paper mainly focuses on the time lag value relevance of donation cost to reveal whether donation cost should be capitalized or expensed.

The results of this paper support both research hypotheses 1 (donation expenses have an effect on firm value) and 2 (donation expenses have a time lag effect on firms' future value).

Specifically, donation cost is significantly associated with operating income, and this association continues for two to 12 years. Considering the results of this paper, it may be concluded that there is significant support to show that firms with strong donation activities create more operating income than those companies with weaker donation costs. The empirical findings of this paper suggest that donation expenses have potential ability to create future cash flows in firms listed on the Korean stock markets.

This paper may contribute to the accounting literature on the value relevance of CSR; the implications of this paper are twofold. First, this study provides empirical evidence that corporate donation activities are significantly associated with enterprise value in the Korean financial markets. This result verifies that Korean investors take CSR activities into consideration when they invest in Korean companies. Second, this study shows that business donation activities have value relevance for a long period. The empirical evidence on the long-term value relevance of donation expenses suggests there should be debate on whether the accounting treatment of donations should be changed in Korean accounting practices. However this study does not cover financial data of developed countries, so the implication of this study should be limited to firms listed in the Korean financial markets.

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Note

Note 1. This paper deletes outliers in the sample data with Cook's distance higher than 0.5 and absolute value of student residuals higher than 2.

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